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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Kie Y. Ahn et al.

Title:

BIPOLAR TRANSISTORS WITH LOW-RESISTANCE EMITTER CONTACTS

Docket No.:

303.466US1

Filed:

April 29, 1998

Examiner:

W. David Coleman

Serial No.: 09/069,668

Due Date: November 22, 2002

Group Art Unit: 2823

Commissioner for Patents Washington, D.C. 20231

We are transmitting herewith the following attached items (as indicated with an "X"):

 \underline{X} A return postcard.

 \underline{X} An Amendment and Response (7 Pages).

X A Clean Version of Pending Claims (9 pgs.).

Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

Atry: Eduardo E. Drake

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<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this <u>ZZ</u> day of <u>November</u>, 2002.

Name Tinc Kohal

Signature

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(GENERAL)

PATEN

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AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on August 22, 2002. Please amend the above-identified patent application as follows.

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect amendment of previously pending claims 12 and 28, and addition of new claims 39-41. The specific amendments to individual claims are detailed in the following marked up set of claims.

12. (Amended) A method of making an emitter contact for a bipolar transistor, the method comprising:

forming a polysilicon structure on an active region of the transistor, the polysilicon structure including:

a diffusion barrier layer on the active region; and

a polysilicon layer on the diffusion barrier layer; and

cross-diffusing metal and at least a portion of the polysilicon layer to thereby form an emitter contact.

(Amended) A method of reducing emitter resistance of a bipolar transistor, the method 28. comprising:

forming a bipolar transistor structure having a polysilicon emitter contact electrically

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emitter having an electrical resistance;

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